

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P02685WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2004/000466	International filing date (day/month/year) 21.01.2004	Priority date (day/month/year) 28.02.2003
International Patent Classification (IPC) or national classification and IPC H04Q7/38		
Applicant SIEMENS AKTIENGESELLSCHAFT et al.		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of _____ sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>5</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000466

Box No. I

Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 2, 4-18 _____ as originally filed/furnished
- pages* 3, 3a _____ received by this Authority on 03.01.2005 with letter of 03.01.2005
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-5 _____ received by this Authority on 01.04.2005 with letter of 31.03.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/2-2/2 _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/000466

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-5	YES
	Claims		NO
Inventive step (IS)	Claims	1-5	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

1. Reference is made to the following documents:

D1: US 2002/003783 A1 (FRIMAN LEIF ET AL) 10
January 2002 (2002-01-10)

D2: DE 100 29 427 A (SIEMENS AG) 20 December 2001
(2001-12-20)

D3: EP-A-1 154 663 (LUCENT TECHNOLOGIES INC) 14
November 2001 (2001-11-14)

D4: US-B1-6 374 112 (WIEDEGREN INA ET AL) 16 April
2002 (2002-04-16).

2. The application satisfies the requirements of PCT Article 33(1) because the subject matter of the new **claims 1 to 5** is novel, inventive and industrially applicable (PCT Article 33(2) to (4)).

2.1 According to the preamble of the new **claim 1**, the subject matter of the application concerns a method for allocating radio resources for the transmission of data in a radio communications system.

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Document D1 is the closest prior art and is acknowledged on page 3 of the amended description.

Document D1 likewise describes a method for allocating radio resources for the transmission of data in a radio communications system and discloses a dynamic allocation of the packet data transmission channels of an Abis interface required at any given time, wherein a packet data number is varied as a function of a modulation, using an encoding scheme of an Um interface. However, neither document D1 nor any of the remaining available prior art documents offers anything to suggest that an allocation of radio resources should be carried out in such a way that the benefit to all subscribers is maximised using optimisation methods.

The problem to be solved is therefore that of finding a method for allocating radio resources for a packet data transmission in a radio communications system which ensures that all subscribers enjoy satisfactory data rates.

According to the solution of the invention, the radio resources are allocated in such a way that the benefit to all subscribers is optimised using optimisation methods, the benefit to all subscribers being defined as the minimum quotient of the actual data rate over the data rate requested by the subscriber, for all subscribers.

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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The solution to the above problem, as proposed in the invention, is not known from, or suggested to a person skilled in the art by, document D1 or the remaining available prior art.

2.2 Dependent **claims 2 to 5** contain further design features of the method according to **claim 1** and hence likewise meet the requirements for novelty and inventive step of PCT Article 33(2) and (3).

2.3 The invention disclosed in **claims 1 to 5** is clearly also industrially applicable (PCT Article 33(4)).

Box No. VII **Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

The application has the following formal defects:

- a) **Claim 1** has not been drafted in the two-part form defined by PCT Rule 6.3(b), according to which the features known in combination from the closest prior art (document **D1**) should have been placed in the preamble (PCT Rule 6.3(b)(i)) and the remaining features specified in the characterising part (PCT Rule 6.3(b)(ii)).

- b) The technical features of the claims are not followed by reference signs placed between parentheses (PCT Rule 6.2(b)).

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The application does not satisfy the requirements of PCT Article 6 because **claim 1** is not clear.

Claim 1 discloses "... existing allocations of other subscribers to resources ..." without defining what these resources refer to. As a result, **claim 1** is unclear.

For the purpose of the examination, it is assumed that the stated resources refer to the first and the second interface (see pages 11 to 12 of the description).